Amendments to the Claims

1.   (Previously Presented) An optical disc driver comprising:

a data processor for processing data read out from an inserted disc and data to be recorded on the disc;

a memory section for storing the data in the unit of an error correction code (ECC) block read/written by the data processor;

a buffer for temporarily storing data blocks to be recorded on the disc by the data processor; and

a controller for controlling the data processor, and generating a command to record on the disc the data of the ECC blocks stored in the buffer if the number of the ECC blocks stored in the buffer becomes larger than the predetermined number of the ECC blocks.

2.   (Cancelled)

3.   (Currently Amended) A data recording method for an optical disc driver comprising the steps of:

(a) receiving a data recording command;

(b) analyzing the received data recording command at least to determine an unit of data to be recorded, and encoding data to be recorded in a corresponding user region block;

(c) storing the encoded data in the unit of an error correction code (ECC) block in a buffer; and

(d) recording the data of the ECC blocks stored in the buffer after a data unit recorded previously is reproduced and stored in the buffer or not reproduced, based on the result of analyzing step. The data recording method as claimed in claim 2, wherein at step (b), if an unit of the data to be recorded is a sector, the data of the ECC block of the user region corresponding to the sector is reproduced, the data to be newly recorded is inserted into the data of the reproduced ECC block, and the processed ECC block is encoded.

4.   (Currently Amended) A data recording method for an optical disc driver comprising the steps of:

(a) receiving a data recording command;

(b) analyzing the received data recording command at least to determine an unit of data to be recorded, and encoding data to be recorded in a corresponding user region block;

(c) storing the encoded data in the unit of an error correction code (ECC) block in a buffer; and

(d) recording the data of the ECC blocks stored in the buffer after a data unit recorded previously is reproduced and stored in the buffer or not reproduced, based on the result of analyzing step. The data recording method

as claimed in claim 2, wherein at step (b), if an unit of the data to be recorded is an ECC block, the ECC block data of the user region is not reproduced, but the ECC block to be recorded is encoded.

5.   (Currently Amended) A data recording method for an optical disc driver comprising the steps of:

(a) receiving a data recording command;

(b) analyzing the received data recording command at least to determine an unit of data to be recorded, and encoding data to be recorded in a corresponding user region block;

(c) storing the encoded data in the unit of an error correction code (ECC) block in a buffer; and

(d) recording the data of the ECC blocks stored in the buffer after a data unit recorded previously is reproduced and stored in the buffer or not reproduced, based on the result of analyzing step. The data recording method as claimed in claim 2, wherein the ECC block data stored in the buffer at step (c) is recorded if no data recording command is newly received until a predetermined time elapses from the time when the data recording command is received.

6.   (Previously Presented) An optical disc driver comprising:

a data processor for processing data read out from an inserted disc and

data to be recorded on the disc;

a memory section for storing the data in the unit of an error correction code (ECC) block read/written by the data processor;

a buffer for temporarily storing data blocks to be recorded on the disc by the data processor; and

a controller for controlling the data processor, and in the event that the data recording commands which deviate from boundaries of the ECC blocks are sequentially received, performing a data reproduction only with respect to a first data recording command and a last data recording command, and performing an encoding of the respective ECC blocks with respect to sequential intermediate data recording commands without performing the data reproduction.

7.   (Original) A data recording method for an optical disc driver comprising the steps of:

(i) receiving a data recording command;

(j) analyzing the data recording command received at step (i), and detecting a user region block where the data is recorded;

(k) detecting an error correction code (ECC) block Ec corresponding to the user region block detected at step (j);

(l) judging whether or not the ECC block Ec detected at step (k) is

connected to an ECC block Ep processed in accordance with a previously received data recording command;

(m) if it is judged that the ECC block Ec is connected to the ECC block Ep processed in accordance with a previously received data recording command, judging whether or not an encoding of the data to be recorded in the ECC block Ec is performed;

(n) if it is judged at step (m) that the encoding of the data to be recorded in the ECC block Ec is not performed, inserting the data to be recorded in the ECC block Ec among the data received at step (i) into a predetermined position of the ECC block Ec waiting to perform the encoding; and

(o) encoding and recording the data of the ECC block Ec processed at step (n).

8.   (Original) The data recording method as claimed in claim 7, wherein if it is judged that the ECC block Ec is not connected to the ECC block Ep processed in accordance with a previously received data recording command as a result of judgement at step (l), the data of the ECC block Ec is reproduced.

9.   (Original) The data recording method as claimed in claim 7, wherein if it is judged that the encoding of the data to be recorded in the ECC

block Ec is performed as a result of judgement at step (m), the data of the ECC

block Ec is reproduced.

10.   (Previously Presented) An optical disc drive system comprising:

a data processor for processing data read out from a disc and data to be recorded on the disc;

a memory section for storing the data in the unit of an error correction code (ECC) block read/written by the data processor;

a buffer for temporarily storing data blocks to be recorded on the disc by the data processor;

a controller for controlling the data processor, generating a command to record on the disc the data of the ECC blocks stored in the buffer if the number of the ECC blocks stored in the buffer becomes larger than the predetermined number of the ECC blocks, and in the event that data recording commands which deviate from boundaries of the ECC blocks are sequentially received, performing a data reproduction only with respect to the first data recording command and the last data recording command, and performing an encoding of the respective ECC blocks with respect to the sequential intermediate data recording commands without performing the data reproduction; and

a host for requesting the data to the controller.